What Else Can You Say About Oil?



Source: www.TurfMagazine.com

Precision: I found this website that gives the straight skinny on oils: how they are made and why one type is better than another:

http://motorcycleinfo.calsci.com/Oils1.html.

It also dissects oil filters and why we should use one brand over another.

Very good information and has sources quoted so you can do your own research.

topsites: I found this one quite useful as well: www.bobistheoilguy.com/.

turfeater: Question: If a multi-viscosity oil is rated, say, 10W-30, does that mean it has the weight or viscosity of 10w and additives to equal 30 weight?

And, if that is true, then why do some engine manufacturers and engines require a straight 30w? Why wouldn't a 10W-30 work? Unless its additives don't add up.

Mark in MD: This is the way I understand it: 10W-30 oil in your mower is exactly the same as SAE 30 oil in your mower, when at operating temperature. The difference is, the 10W-30 oil will behave exactly like an SAE 10 weight oil when cold, which means it is thinner than SAE-30 oil when cold. But, this is not a good thing, if the manual calls for SAE 30.

Don't confuse the W in 10W-30 as "weight." I believe the W stands for "winter." Nevertheless, when the engine reaches operating temp, even in winter, the 10W-30 is just like SAE 30.

jestal: The reason that straight 30 was specified in some engines was to avoid the viscosity improvers that are required to make a 10W-30 oil. Viscosity improvers are long-chain polymers that react to temperature and allow the viscosity swing of a 10W-30 oil. The viscosity improvers "thicken" the base 10 weight oil to make it like a 30 when hot — magic. Viscosity

improvers can also cause problems with deposit formation in the piston ring belt area causing ring sticking. So, some heavy-duty engines specify non-viscosity improver oils, like the straight weight 30.

"W" in 10W-30 oil definitely stands for winter. People have used W to stand for weight in casual conversation, but in the API oil classifications state the W is clearly for "winter" to delineate the "cold" oil viscosity as it would be in the winter.

Dr. Godfrey: Another great place of info on oil the simple man can understand is www.bobistheoilguy.com. All based on easy tests.

Wizz: W indeed stands for winter, not weight. I agree that bobistheoilguy is a great site. I've learned a lot just by reviewing the various oil analysis posted on that site.

PatrickGSR94: Best oil info I've seen is from a guy named Dr. Haas on the Ferrari Chat website: http://ferrarichat.com/forum/faq.php?faq=haas-articles.

Each number in the oil viscosity designation refers to a particular weight when cold (i.e. during cold startup, which can be summer also) and when at operating temperature. Generally, the higher the number, the thicker the oil. However each number can not be directly correlated to each other!

So, for example, 10W-30 and 10W-40 will be about the same viscosity under about 100 degrees or so, but the 10W-30 will be thinner at operating temperature of 170 to 190 degrees.

Also, the "W" does NOT stand for "winter".

From SAE J300 p.2:

"Two series of viscosity grades are defined in Table (1): (a) those containing the letter W and (b) those without. Single viscosity-grade oils with the letter W are defined by maximum low temperature cranking and pumping viscosities and a minimum kinematic viscosity at 100C. Single-grade oils without the letter W are based on a set of minimum and maximum kinematic viscosities at 100C and a minimum high shear rate viscosity at 150C. The shear rate will depend on the test method. Multigrade oils are defined by both of these criteria. The W is just a designation of one type of testing versus another.